

68. (New) The method according to claim 63, wherein the mortgage pool component cash flows comprise cash flows from at least one Financial Asset Securitization Investment Trust (FASIT).

69. (New) The method according to claim 63, wherein the mortgage pool component cash flows comprise cash flows from at least one multiple-class mortgage security.

70. (New) The method according to claim 63, wherein the mortgage pool component cash flows comprise cash flows from at least one collateralized mortgage obligation.

REMARKS

By this amendment, Applicant cancels claims 1-6 and 11-26. Applicant also amends claims 7, 27, 28, 31, 45, and 46 to clarify the claims. Additionally, Applicant has added new claims 49-70 to more precisely claim the subject matter to which Applicant is entitled. No new matter has been added. Attached hereto is an Appendix which details the amendments made to the claims. Claims 7-10 and 27-70 are now pending in this case, of which claims 7, 27, 31, 45, 49, 58, and 63 are independent claims.

In the last Office Action, the Examiner rejected claims 1-48 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. No. 6,070,151 to Frankel ("Frankel") in view of U.S. Pat. No. 6,321,212 to Lange ("Lange") in view of an article entitled "Pricing

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
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Mortgage-Backed Securities in a Multifactor Interest Rate Environment: A Multivariate Density Estimation Approach" by Boudoukh et al. ("Boudoukh") in view of an article entitled "The Relevance of Interest Rate Processing in Pricing Mortgage-Backed Securities" by Chen et al. ("Chen") and further in view of an article entitled "A Closer Look at Mortgage-Backed Securities" by Cahill ("Cahill"). The Examiner contends that Frankel teaches a method for creation of structured interest rate securities, and he contends that Boudoukh teaches analyzing and pricing of mortgage-backed securities. The Examiner also contends that Chen teaches term structure fitting and cash flows due to prepayments, and he contends that Lange teaches hedging strategies and floating-rate characteristics including market risk, credit risks, and event risks in derivatives trading and pricing. Cahill allegedly teaches hedging strategies and floating rate characteristics. The Examiner contends that it would have been obvious for one skilled in the art to combine Frankel in view of Lange to teach the elements from each of the elements above. The Examiner alleges motivation to combine the references in Lange, which purportedly teaches a method for statistical diversification of credit risk through the mutualization of multiple derivative counterparties and for creating a market for derivatives trading.

Applicant respectfully disagrees with the Examiner's assertions. In order to make a *prima facie* case of unpatentability under § 103, the Examiner must show each and every element of Applicant's claimed invention, a reasonable expectation of success, and a motivation to combine the references. The Examiner has failed to make the *prima facie* case because he has neither shown each and every element of the claims

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HENDERSON
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DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
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in the references, nor shown a reasonable expectation of success, nor shown a motivation to combine the references.

To illustrate, consider representative claim 49, a new claim that is a modification of original claim 1, which recites, *inter alia*, a method for creating investment securities. A securities structure backed by mortgage pool components and having one or more classes of securities is optimized in accordance with regulatory structuring constraints, wherein each class includes interest cash flows and/or principal cash flows. A determination is made to see if a class of the optimized securities structure is economically inefficient under one or more market conditions. An inefficient class is restructured to make it economically efficient under the one or more market conditions by combining mortgage pool components with interest-rate derivative components in an economically efficient manner. The structured securities are issued.

Frankel does not disclose, suggest, or teach making an inefficient class of a mortgage-backed security economically efficient by combining mortgage pool components with interest-rate derivative components in an economically efficient manner under one or more market conditions. In contrast, Frankel teaches the issuance of securities having principal-only and interest-only cash flows backed solely by mortgages. See, e.g., Frankel col. 3, line 29 to col. 4, line 48. This is not the same thing as combining mortgage pool components with interest-rate derivative components to create investment securities.

Moreover, Lange does not disclose, suggest, or teach making an inefficient class of a mortgage-backed security economically efficient by combining mortgage pool components with interest-rate derivative components in an economically efficient

manner under one or more market conditions. In contrast, Lange discloses a purportedly new type of financial derivative instrument that is implemented with demand-based adjustable return (DBAR) contingent claims. See, e.g., Lange col. 7, lines 19-30; col. 8, lines 18-28. Essentially, Lange creates demand-based trading instruments by establishing termination criteria, accepting investments, and allocating a payout to each investment. See Lange col. 10, lines 43-57. Lange emphasizes eschewing traditional "house banking" exchanges or market makers in favor of the traders of DBAR contingent claims themselves, wherein the risk of bankruptcy is allocated among the traders. See Lange col. 9, line 57 to col. 10, line 33. Lange also emphasizes eschewing the traditional over-the-counter derivatives markets in which counterparties enter into non-standardized agreements to swap, for example, fixed interest payments for floating interest payments. See Lange col. 10, lines 9-17. This is clearly not the same thing as combining mortgage pool components with interest-rate derivative components in an economically efficient manner under one or more market conditions to create investment securities.

As mentioned by the Examiner, Chen teaches the pricing of mortgage-backed securities using term structure fitting and cash flows due to prepayments. Boudoukh also teaches a method for pricing mortgage-backed securities in a multifactor interest rate environment. However, the pricing of mortgage-backed securities is not the same as restructuring an inefficient class of a mortgage-backed security to make it economically efficient by combining mortgage pool components with interest-rate derivative components in an economically efficient manner under one or more market conditions. Additionally, the Examiner has alleged that Cahill discloses duration

instabilities and negative convexities. Yet these market factors do nothing to teach or suggest the novel method for creating investment securities utilizing the restructuring recited in claim 49.

The Examiner has failed to make a *prima facie* case because he has not shown a motivation to combine Frankel, Lange, Boudoukh, Chen, and Cahill. The Examiner alleges that the motivation to combine these five references may be found in Lange. However, Lange discloses a system far different from—one might even say skeptical of—traditional derivatives markets. Lange, in fact, eschews the traditional derivatives market in favor of DBAR contingent claims. Yet the present invention relies on the traditional over-the counter derivatives market for derivative components that are combined with mortgage pool components to create classes of securities that are efficient under one or more market conditions. Thus, Lange actually teaches away from Applicant's claimed invention. The portion of Lange (col. 13, lines 41-53) that purports to show a motivation to combine supports Applicant's assertions that Lange teaches away because this portion of Lange discusses the advantages of DBAR contingent claims in demand-based markets. Therefore, the Examiner has also failed to make a *prima facie* case because no motivation to combine has been shown. For at least this reason, claim 49 should be in proper form for allowance.

Because claims 50-57 ultimately depend from claim 49, the Examiner's obviousness rejection should likewise not apply to claims 50-57. Thus, claims 50-57 should also be allowable. Claims 27-30, 31-44, 58-62, and 63-70 are similar in scope to claims 49-57; thus, claims 27-30, 31-44, 58-62, and 63-70 should also be in proper form for allowance.

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GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
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Amended claim 7 recites, among other things, a data processing system comprising a risk analysis and planning module, a deal structure module, and an administration module. The risk analysis and planning module analyzes risk elements of interest-rate derivative and mortgage pool components, develops plans for structuring securities based on selected components, and ensures each plan is economically efficient under one or more economic scenarios. The deal structure module validates an economically efficient plan and initializes files for the securities to be issued under the validated plan. The administration module administers the securities issued under the plan validated and initialized by the deal structure module.

As mentioned above, none of the references cited by the Examiner discloses a system that ensures that an optimal plan for structuring securities is economically efficient. An economically efficient plan may include interest-rate derivative and mortgage pool components. In contrast, the pricing models for mortgage backed securities of Chen and Boudoukh, the market factors enunciated in Cahill, the securities exclusively backed by mortgages from Frankel, and the demand-based contingent claims of Lange do not teach or suggest the novel combination of elements recited in claim 7. For this reason, the Examiner's rejection of claim 7 under 35 U.S.C. § 103(a) is respectfully traversed, and claim 7 is deemed to be in proper form for allowance.

Claims 8-10, which ultimately depend from claim 7, should be allowable for at least the same reasons mentioned above. Claims 45-48 are analogous in scope to claims 7-10 and should be allowable for at least the same reasons mentioned above.

The Examiner also rejected claims 11-15 under 35 U.S.C. § 101 as lacking utility by not providing an output in a concrete, useful, or tangible form. Because claims 11-15

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HENDERSON
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1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
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have been canceled, the Examiner's rejection of these claims is deemed moot. Additionally, the Examiner's attention is directed to new claims 58-62, which are modifications of canceled claims 11-15. Claims 58-62 all recite a system comprising "program code for creating the structured securities." This program code is clearly capable of providing output in a concrete, useful, and tangible form. For at least these reasons, the Examiner's rejection of claims 11-15 under § 101 is deemed overcome.

In view of the foregoing amendments and remarks, Applicant respectfully requests the reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

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By: 

John A. Hudalla
Reg. No. 48,445

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com